

REMARKS

Claims 1-5 are currently pending in the subject application. Claims 1, 4, and 5 have been amended herein in order to more particularly point out and distinctly claim subject matter. The Applicants respectfully submit that no new matter has been added. It is believed that this paper is fully responsive to the Office Action dated August 3, 2010.

1. Applicants' Statement of the Substance of the Interview, Pursuant to 37 C.F.R. § 1.133

In view of 37 C.F.R. § 1.133, Applicants hereby submit the statement of the substance of the interview.

Applicants and Applicants' attorney thank Examiner Crowell for the interview courteously granted November 2, 2010. The special attention the Examiner paid to the instant application is noted with appreciation. Items discussed during the interview include: the Office Action dated August 3, 2010; the disposition of claims shown on page one of the Office Action dated August 3, 2010; and the references cited and relied upon by the Examiner. The Examiner stated that there is no restriction requirement and there is no election requirement. The Examiner listened to and acknowledged Applicants' position regarding the rejections. Additionally, the Examiner noted that the filing of a formal response would provide additional time for the Examiner to more carefully consider the claims, cited art, and arguments.

2. **Restriction and/or Election Requirement**

The Examiner has indicated that claims 1-5 are subject to a restriction and/or election requirement (Office Action dated August 3, 2010, page 1). However, the Examiner has not provided any details regarding a restriction and/or election requirement in the body of the Office Action. During the interview, November 2, 2010, the Examiner confirmed that there is no restriction requirement and no election requirement.

3. **The Examiner has rejected claims 1-5 under 35 U.S.C. §102(a) as being anticipated by International Publication No. WO/2004/095560 (Kasanami '560).**

Applicants respectfully traverse this rejection, for the following reasons.

The Examiner has relied on **Kasanami '560** to reject claims 1-5. However, **Kasanami '560** is not available to be cited as prior art against claims of the subject application.

The effective U.S. filing date of the subject application is March 4, 2005.

The foreign priority date of the subject application is March 26, 2004. The foreign priority date is based on the Applicants' Japanese Patent Application No. 2004/093341.

The PCT filing date of **Kasanami '560** is March 30, 2004.

The publication date of **Kasanami '560** is November 4, 2004.

U.S. Patent Application Serial No.: **10/589,490**
Response filed November 2, 2010
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The PCT filing date of **Kasanami '560**, March 30, 2004, cannot be relied upon by the Examiner under 35 USC 102(e)(1) or 35 USC 102(e)(2), because the international application was not published under PCT Article 21(2) in English.

The effective U.S. filing date of the subject application, March 4, 2005, is after the publication date of **Kasanami '560**, November 4, 2004. However, the foreign priority date of the subject application, March 26, 2004, is before the publication date of **Kasanami '560**, November 4, 2004.

In view of the above, **Kasanami '560** is not an effective reference against claims set forth in the subject application.

In order to perfect Applicants' claim for priority, and obtain the benefit of Applicants' earlier priority date, March 26, 2004, enclosed please find a verified English translation of the Applicants' Japanese Patent Application No. 2004/093341.

Therefore, this rejection of claims 1-5 is improper and should be withdrawn.

4. The Examiner has rejected claims 1-5 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2006/0151117 (**Kasanami '117**).

Applicants respectfully traverse this rejection, for the following reasons.

The Examiner cited **Kasanami '117** in this rejection of claims 1-5. However, **Kasanami '117** is not available to be cited as prior art against claims of the subject application.

The effective U.S. filing date of the subject application is March 4, 2005.

The foreign priority date of the subject application is March 26, 2004. The foreign priority date is based on the Applicants' Japanese Patent Application No. 2004/093341.

The PCT filing date of **Kasanami '117** is March 30, 2004.

The publication date of **Kasanami '117** is July 13, 2006.

The PCT filing date of **Kasanami '117**, March 30, 2004, cannot be relied upon by the Examiner under 35 USC 102(e)(1) or 35 USC 102(e)(2), because the international application was not published under PCT Article 21(2) in English.

The effective U.S. filing date of the subject application, March 4, 2005, is before the publication date of **Kasanami '117**, July 13, 2006.

In view of the above, **Kasanami '117** is not an effective reference against claims set forth in the subject application.

In order to perfect Applicants' claim for priority, and obtain the benefit of Applicants' earlier priority date, March 26, 2004, enclosed please find a verified English translation of the Applicants' Japanese Patent Application No. 2004/093341.

Therefore, this rejection of claims 1-5 is improper and should be withdrawn.

5. The Examiner has rejected claims 1-5 under U.S.C. §103(a) as being unpatentable over U.S. Patent No 5,688,331 (**Aruga**) in view of U.S. Patent No. 5,462,603 (**Murakami**) and U.S. Patent No. 5,423,971 (**Arnold**).

Applicants respectfully traverse this rejection, for the following reasons.

There are substantial, important differences between the art relied upon by the Examiner and the combinations of features as set forth in the claims.

Aruga discloses a high frequency electrode 41 installed in a susceptor wafer support plate 39 (Fig. 6).

The Examiner has acknowledged that **Aruga** fails to teach an electrode arranging space and also fails to teach that there is a gap as claimed.

Murakami discloses that a space is formed in a table-shaped case 13. However, it would not have been obvious to modify **Aruga** to have an electrode arranging space and to have a gap between the high-frequency electrode 41 and at least the pillar within the electrode arranging space. The teachings of **Arnold** fail to remedy the above-discussed deficiencies of **Aruga** and **Murakami**.

Regarding **Aruga**: The pillar is not provided in **Aruga**. There is no gap in the periphery of the high-frequency metallic electrode 41 and the heater 43 (See Fig. 3).

Regarding **Murakami**: There is no gap between the pillar and the electrode (heater) in **Murakami**. The pillar holds the resistance heating body 14, the support plate 41, and the reflector 42 (column 4, line 65). Therefore, a gap cannot be provided.

Regarding **Arnold**: **Arnold** describes that there is a gap between the center electrode 31 and the U-form substrate carrier 52. However, providing a pillar is not indicated. **Arnold** describes that the susceptor is insulated electrically and does not contact the surrounding part (See column 4, line 66 to column 5, line 1). Therefore, the susceptor cannot be regarded as a pillar (support member).

In the subject application, the claims 1 and 5 render the following effect. (See page 4, lines 11-20 of the specification of the subject application, for example.) The combinations of features as set forth in claims 1 and 5 can prevent damage to the high-frequency electrode because even if the thermal expansion coefficient of the high-frequency electrode material is larger than the thermal expansion coefficient of the susceptor main body material, the thermal expansion differential is absorbed by the gaps provided between the high-frequency electrode and the electrode arranging space. Damage to the susceptor main body can also be prevented since the strength of the electrode arranging space is reinforced by the pillars.

Claim 2 renders the following characteristic effects (see page 15, line 25 to page 16, line 8 of the specification of the present application). The distance from the high-frequency electrode 51 to the supporting surface for supporting the wafer provided on the susceptor surface higher than the high-frequency electrode 51; can be set to a smaller distance than that from the high-frequency electrode 51 to the susceptor rear surface lower than the high-frequency electrode 51. Therefore, the distance from the high-frequency electrode 51 to the wafer supported on the susceptor can be reduced, to enhance the effect of the electrical field on the wafer, and also allow installing a heater within the susceptor lower than the high-frequency electrode 51, rendering the effect that the wafer can be directly heated from the susceptor 40 so that the wafer heating efficiency is improved.

Claim 3 renders the following characteristic effects (see page 16, lines 9-18 of the specification of the present application). Even if there is a large difference between the pressure

within the space of the electrode arranging hole and the pressure of the processing chamber of the MMT apparatus, damage to the susceptor main body can be prevented by using pillar to boost the strength of the susceptor main body. In other words, even if there is a reduction in pressure within the processing chamber, the internal space within the susceptor main body can be connected with the outside atmosphere, rendering the effect that the air-tight seal structure can be simplified.

Claim 4 renders the following characteristic effects (see page 16, line 23 to page 17, line 3 of the specification of the present application). The high-frequency electrode can be easily installed in the electrode arranging hole where multiple pillars are provided by inserting each pillar into each insertion hole by forming multiple insertion holes in one metal plate serving as the high-frequency electrode. Moreover, the high-frequency electrode can be accurately installed in the electrode arranging hole without position deviations, rendering the effect that the cost of manufacturing the susceptor and therefore the MMT apparatus can be reduced.

Aruga, Murakami, and Arnold, alone or in combination, fail to describe, teach, or suggest the combination of features as set forth in claim 1 including at least the following features: “a high-frequency electrode installed with a gap between the electrode and at least the pillar within the electrode arranging space.”

Aruga, Murakami, and Arnold, alone or in combination, fail to describe, teach, or suggest the combination of features as set forth in claim 5 including at least the following

features: “a high-frequency electrode installed with a gap between the electrode and at least the pillar within the electrode arranging space.”

In view of the above, **Aruga, Murakami, and Arnold**, alone or in combination, fail to describe, teach, or suggest the combinations of features as set forth in claims 1 and 5. Accordingly, Applicants respectfully submit that this rejection of claims 1 and 5 should be withdrawn.

Claims 2, 3, and 4 depend from claim 1. It is submitted that this rejection of claims 2-4 should be withdrawn by virtue of their dependency.

6. Claims 1 and 5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 8 of copending Application No. 12/153,101 (U.S. Patent Application Publication No. 2008/0223524).

Applicants respectfully to traverse this provisional rejection, for the following reasons.

This provisional obviousness-type double patenting rejection will evaporate if a patent containing allowed claims does not issue on Application No. 12/153,101. In other words, this provisional rejection may be obviated by future events.

In view of the above, Applicants believe that the Examiner should not require any action by Applicants on this matter until a time when Application No. 12/153,101 actually issues as a patent.

Thus, Applicants respectfully request that the Examiner hold this provisional rejection in abeyance until Application No. 12/153,101 actually issues as a patent.

7. Informality.

Claim 4 has been amended herein in a manner intended to remove an informality.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

U.S. Patent Application Serial No.: **10/589,490**
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In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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